



Summary

A culture media is nutrient material prepared for the growth of microorganisms. Microorganisms that grow in size and number on a culture media are referred to as a culture. Like any other living system, microorganisms also require a source of energy, carbon, nitrogen, oxygen, iron and other minerals, micronutrients and water for growth, and multiplication. All these nutrients that are essential for the growth and multiplication of microorganisms are supplied in the form of nutrient media. A culture medium must be sterile, meaning that it contains no microorganisms. A standard carbon source is glucose and nitrogen is often provided by peptones (partially digested proteins) or inorganic salts. Minerals and vitamins may also be provided, according to the growth requirements of the microorganisms. Combinations of chemicals (buffers) may be used to keep the pH stable. Measured amounts of the concentrates are added to water and dissolved to reconstitute the media. Sometimes, substances are mixed into media, in order to suppress growth of other types of bacteria. There are many such selective, enriched and differential media. Proper nutrients, pH, moisture, and oxygen levels (or no oxygen) are required for a specific microorganism to grow. Media are constantly being developed for the identification and isolation of bacteria and fungi in the research of food, water and other microbiology studies.